215, 243 (1st Cir.2005) (quoting *PMP Assocs., Inc., v. Globe Newspaper Co.*, 366 Mass. 593, 321 N.E.2d 915, 917 (1975)). Additional consideration may be given to the "equities between the parties," "what a defendant knew or should have known," and "a plaintiff's conduct, his knowledge, and what he reasonably should have known." *Swanson v. Bankers Life Co.*, 389 Mass. 345, 450 N.E.2d 577, 580 (1983); *see also Mass. Sch. of Law v. Am. Bar Ass'n*, 142 F.3d 26, 41 (1st Cir.1998) (to state a 93A claim, "the defendant's conduct must be not only wrong, but also egregiously wrong").

The Court should focus "on the nature of challenged conduct and on the purpose and effect of that conduct as the crucial factors in making a [Chapter 93A] fairness determination." *Mass. Employers Ins. Exch. v. Propac–Mass, Inc.*, 420 Mass. 39, 648 N.E.2d 435, 438 (1995) (characterizing the much worn phrase "level of rascality" as "uninstructive"); *see RGJ Assocs. v. Stainsafe, Inc.*, 338 F.Supp.2d 215, 234–35 (D.Mass.2004) (quoting *Mass. Employers Ins. Exch.*). Adherence to industry standards or customs is one factor that supports a finding of no unfairness under Chapter 93A. *See, e.g., James L. Miniter Ins. Agency Inc. v. Ohio Indem. Co.*, 112 F.3d 1240, 1251 (1st Cir.1997) (considering defendant's adherence to industry standard in finding no unfairness); *USM Corp. v. Arthur D. Little Sys., Inc.*, 28 Mass.App. Ct. 108, 546 N.E.2d 888, 898 (1989) (using "conformity with accepted methods within the business community" as one factor in concluding that there was no Chapter 93A violation). Nonetheless, the existence of an industry-wide practice does not constitute a complete defense to unlawful conduct in a Chapter 93A action. *DeCotis*, 316 N.E.2d at 753.

2. *The Inflation of AWP*

[12] The key question in this litigation is whether causing the publication of an AWP that greatly exceeds the average sales price charged to a doctor or pharmacist for certain drugs covered by Medicare Part B is an unfair or deceptive trade practice under Chapter 93A. Under the plain meaning canon of statutory construction, I have construed the statutory term AWP in 42 U.S.C. § 1395u(*o*) to mean the average price at which wholesalers sell drugs to their customers, including physicians and pharmacies. *See In re Pharm. Indus. Average Wholesale Price Litig.*, 460 F.Supp.2d 277, 278 (D.Mass.2006).

The overwhelming evidence at trial established that AWPs are fictitious and are rarely, if ever, prices paid by doctors for PADs or by pharmacies for SADs. Nonetheless, defendants argue that they had no intent to deceive the patients or payors who ultimately paid for their products when they caused their AWPs to be published in the compendia. The manufacturers have emphasized that both the government and TPPs understood that AWP was a fictitious number and were not deceived by the published AWP.

It is true that by the late 1990's most sophisticated TPPs and the government understood that AWP did not represent a true average of wholesale prices, but that there was a spread of 20 or 25 percent between the AWP and wholesale list (or acquisition) price. However, this knowledge does not exonerate defendants.

I find that the defendants unfairly and deceptively caused to be published false AWPs (or their formulaic counterparts: false WACs or WLPs) knowing that TPPs and the government did not understand the extent of the mega-spreads between published prices and true average provider acquisition costs. Moreover, defendants knew that neither the government nor the TPPs could do much to change the AWP

reimbursement benchmark because they were locked into the nationwide reimbursement scheme established by statute or contract.

Unscrupulously taking advantage of the flawed AWP system for Medicare reimbursement by establishing secret mega-spreads far beyond the standard industry markup was unethical and oppressive. It caused real injuries to the insurers and the patients who were paying grossly inflated prices for critically important, often life-sustaining, drugs. Defendants caused these injuries by not reporting a true average wholesale price, that approximated provider actual acquisition costs or was within well established industry expectations (i.e., the Hartman 30 percent "speed limit"). Instead, the spreads were as high as 1,000%. This is exactly the sort of false and misleading information for which Chapter 93A is intended to provide relief. *See OIG Compliance Program Guidance for Pharmaceutical Manufacturers*, 68 Fed.Reg. 23,731 at 23,733 (May 5, 2003) (specifying, at the end of the class period, that manufacturers are under a legal duty not to submit "false, fraudulent, or misleading information" where "reimbursement by Medicare and Medicaid[ ] for the manufacturer's product depends, in whole or in part, on information generated or reported by the manufacturer, directly or indirectly, and the manufacturer has knowingly ... failed to generate or report such information completely and accurately").

While I find that the mega-spreads prior to 2001 were deceptive as well as unfair, I also find that once the cat was out of the bag, and the mega-spreads became widely known, the conduct was still egregious under the unfairness prong of Chapter 93A because neither the TPPs nor the government could move quickly or effectively to fix the problem. In retrospect, at least, it has become clear that the Medicare statute itself created a perverse incentive by pegging the nationwide reimbursement for billions of drug transactions a year to a price reported by the pharmaceutical industry, thus putting the proverbial pharmaceutical fox in charge of the reimbursement chicken coop. The different pharmaceutical companies unfairly took advantage of the system by setting sky high prices with no relation to the marketplace.

While establishing mega-spreads itself constitutes egregious misconduct, marketing those spreads so that doctors would choose a drug based on profit rather than therapeutic value is particularly outrageous and unethical. Even the industry understood that spread-marketing violated industry standards. Both BMS and J & J instructed their sales teams that the spread should not be a promotional or marketing tool, although these instructions were often ignored. Moreover, in 2003, the OIG belatedly issued guidelines condemning this practice. *Id.* at 23,737 ("If a pharmaceutical manufacturer purposefully manipulates the AWP to increase its customers' profits by increasing the amount the federal health care programs reimburse its customers, the anti-kickback statute is implicated."). Although these guidelines were issued at the end of the class period, they defeat any notion that the federal government's failure to change the AWP pricing benchmark signaled acquiescence in spread-marketing or the reporting of mega-spreads.

Throughout the class period, the pharmaceutical industry understood that if the size of the spreads and the marketing of the spreads became public, a public relations nightmare would ensue. As such, the manufacturers insisted on confidentiality in physician contracts and lobbied to undermine government surveys. *See In re Lupron Mktg. & Sales Practices Litig.*, 295 F.Supp.2d 148, 168 n. 19 (D.Mass.2003)

(pointing out that "[i]f everything [about Lupron] was known to everybody, why did defendants emphasize secrecy?").

Significantly, the defendants well understood the devastating impact the mega-spreads had on old and sick patients required to make co-payments they could ill afford, and set up programs to help some needy patients by subsidizing their costs. The spiraling drug costs incurred by third-party payors and the government, however, were never a concern.

3. *Causation*

[13, 14] In order to warrant an award of damages under Chapter 93A, "there must be a causal connection between the seller's deception and the buyer's loss." *Hershenow v. Enter. Rent–A–Car Co. of Boston*, 445 Mass. 790, 840 N.E.2d 526, 532 (2006) (internal citation and quotation marks omitted). To establish causation, Dr. Rosenthal testified that class members paid more for drugs based on a false AWP than they would have if defendants had reported a true AWP. Cf. *Hershenow*, 840 N.E.2d at 535 (finding no causation because "[t]he [illegal provision of the car rental contract] made neither rental customer worse off during the rental period than he or she would have been had the [provision] complied in full with the requirements of [Massachusetts law]"). She confirmed this finding by examining current reimbursements under the MMA, demonstrating cost savings on many of the Medicare Part B drugs at issue. As noted above, the fact that the TPPs have been slow to change their reimbursement systems does not negate causation.[70] Even Dr. Bell admitted that TPPs faced several significant impediments to quickly changing reimbursement practices.

Furthermore, several pharmaceutical witnesses confirmed causation by testifying that they knew that TPPs and consumers were paying more for a drug every time the AWP was raised. Plaintiffs' damages were not only foreseeable, defendants were well aware of them throughout the class period.

For Class 2, defendants argue that the method BCBSMA uses to set its premiums for its Medigap policies demonstrates that there is no loss to BCBSMA.[71] Defendants argue that the contribution to reserves is an actual profit to BCBSMA, over and above the costs of prescription drugs, and that the costs are in effect passed on to the insureds such that BCBSMA suffers no injury.

The evidence does not support this conclusion. First, there is as much as a two year lag period between the time when BCBSMA incurs a cost and the time when those costs may be incorporated into the rate setting process used to determine premiums. Second, Mr. Arruda, the BCBSMA executive, testified that insurance is a risky business and the contribution to reserves is used to cover unforeseen risks. Defendants have failed to prove that the purpose or effect of the contribution to reserves is to recover money paid out for current claims. *See In re Terazosin Hydrochloride Antitrust Litig.*, 220 F.R.D. 672, 690 (S.D.Fla.2004) ("[T]o the extent that any third-party payer did charge its insureds a higher premium be-

70. While there is a duty to mitigate, defendants mention this defense only in passing. In any event, mitigation was only possible once Medicare had developed an ASP methodology. Furthermore, I reject defendants argument that BCBSMA's decision to continue using AWP defeats causation. If defendants had reported true AWPs, plaintiffs would have paid less.

71. Defendants did not present any evidence regarding the rate setting practice for BCBSMA's commercial plans.

cause of a drug company's monopolistic activities, the charging of a higher premium in the future cannot be accurately described as a 'pass on' of those charges. The record is clear that the purpose of a future projection is, as the name implies, to estimate anticipated future costs.").

Defendants caused injury to both Class 2 and Class 3 plaintiffs.

4. *Class 2 Liability and Damages*

With respect to Class 2, Dr. Hartman's damage and liability calculation was based on the plaintiffs' legal conclusion that any spread between AWP and ASP was per se unlawful under the Medicare statute because the statutory term AWP in 42 U.S.C. § 1395u(*o*) means the average price at which wholesalers sell drugs to their customers, including physicians and pharmacies.

What Congress understood and intended AWP to mean is not the same as what the industry understood. It is undisputed that AWP was calculated by a 20 to 25 percent markup from WAC or WLP, and that this formula was widely known and published in the class period (although not as well understood by less sophisticated market participants). The unfair and deceptive standard of misconduct required by Chapter 93A is different from a strict liability statutory violation. Because information about the 20 to 25 percent spread was widespread in the industry, a violation of the Medicare statute by publishing an "AWP" that was not a true average of wholesale prices does not trigger per se liability under Chapter 93A.[72] Therefore, I reject plaintiffs' zero tolerance approach to liability and damages in Class 2.

5. *Multi-source drugs*

Certain BMS,[73] Schering–Plough,[74] and Warrick products were multi-source for at least part of the class period. The interchangeability of these drugs, coupled with the "J–Code" reimbursement system, makes it practically impossible for the plaintiffs to know which drug company's product was dispensed to any party at any point. Plaintiffs must demonstrate that the unfair conduct caused them harm. The method for reimbursing multi-source drugs and the difficulty in product identification create extremely difficult legal issues for the branded and generic multi-source drugs in Class 2.[75]

I begin with describing the system of reimbursement of multi-source drugs. During the time-period at issue, 1998 through 2003, Medicare reimbursed multi-source drugs at 95% of the lesser of the median of the generic AWPs or the lowest brand AWP. *See* 42 C.F.R. § 405.517 (2003) (DX 1852). For these Part B drugs, the branded drugs nearly always

72. Interestingly, the 20 to 25 percent markup of AWP was well known in the industry at the time the BBA was enacted in 1997. As such, this practice is arguably relevant in construing the meaning of the statutory term AWP. Defendants never made this argument. Rather, defendants' proposed statutory interpretation that Congress intended AWP to be a blank check to the industry to impose whatever markup it wanted is supported nowhere in the legislative or trial record.

73. Blenoxane became multi-source in 1996, Vepesid injectable in 1994, Vepesid capsules in 2001, and Cytoxan tablets in 2000. Taxol faced branded competition in 2000 and generic competition in 2001. Cytoxan injectable and Rubex were multi-source throughout the class period.

74. Proventil became multi-source in 1992.

75. Remember, multi-source drugs are not included in the damage calculations in Class 3 because many such drugs were not reimbursed based on AWP, but on other benchmarks developed by TPPs like "maximum allowable cost." (*See* Hartman Decl. ¶ 156.)

had higher AWPs such that in actuality Medicare reimbursed based on the median generic AWP.

a. *Causation*

For the branded multi-source drugs, defendants argue that reimbursement was based upon the median of the generics rather than the AWP of the manufacturer's branded drug, so that the manufacturer did not cause plaintiffs' injuries. It is true that, given the statutory reimbursement scheme and the fact that generic AWPs were below the brand AWPs, payments for these drugs were never based upon the brand name drug's AWP. However, the flip side is that if BMS had reported a true AWP for its branded multi-source drugs, Medicare would have reimbursed based on that branded drug's AWP, rather than the inflated median, and plaintiffs would have paid less.[76] Thus, when BMS reported an inflated AWP for a branded multi-source drug, it caused a higher reimbursement rate to be used. This resulted in injury to every plaintiff who purchased any version of its multi-source drug, regardless of the manufacturer.

The causation question for generic multi-source drugs, in particular Warrick's albuterol sulfate, is considerably more difficult. Warrick argues that because no generic manufacturer can unilaterally affect the median AWP, a manufacturer of a generic drug could not have legally caused plaintiffs' injuries.

Dr. Hartman responds that "[a]lthough the median itself is not readily subject to strategic manipulation by *any single generic manufacturer*, the distribution of AWPs for generic sources of the drug is subject to the strategic manipulation of all generic manufacturers, and, thereby the median AWP." (Hartman Decl. ¶ 32 (emphasis in original).) He continues that "all manufacturers of a multi-source drug have the incentive to maintain the median AWP as high as possible, to increase the spreads of all these manufacturers relative to potential therapeutic competitors." (*Id.*) He refers to this result as a "tacit informal Nash equilibrium in the dispersion of generic AWPs." (*Id.*) "A set of strategies is called a Nash equilibrium if, holding the strategies of all other firms constant, no firm can obtain a higher payoff (profit) by choosing a different strategy. Thus, in a Nash equilibrium, no firm wants to change its strategy." (*Id.* ¶ 32(d) n. 49 (quoting Dennis Carlton and Jeffrey Perloff, *Modern Industrial Organization* 157 (3d ed.2000)).) In plaintiffs' view, this tacit collusion in the AWP-setting is sufficient to find that the generic manufacturers of albuterol jointly caused the harm to the class members. Dr. Hartman rounds out his theory by positing that once the generic manufacturers have jointly inflated the median AWP, they "compete amongst themselves on spread through the reduction of their ASPs." (Hartman Decl. ¶ 32.)

Warrick takes issue with Dr. Hartman's claim that all manufacturers have an incentive to maintain a high median in order to compete with therapeutic alternatives. As Dr. Addanki points out, that does not make sense for albuterol because it is primarily pharmacy-dispensed. While the pharmacist may well be able to choose which generic it dispenses, there is no evidence that he might unilaterally substitute a therapeutic alternative not prescribed by the doctor. (*See* Addanki Am. Decl. ¶ 42.) In Dr. Addanki's opinion, the spread, therefore, cannot influence what

76. Furthermore, the industry practice was that generic drugs pegged their AWPs at 10%–20% off of the brand AWP. Thus, by publishing an inflated brand AWP, the manufacturer contributed to the establishment of a median fictitious AWP.

drug is prescribed, and manufacturers have no reason to collude to inflate the median.

Warrick states that when it first set the AWP for albuterol, it was merely following the standard industry practice of listing the generic AWP 10%–20% below the branded drug's AWP. In other words, it contends that there was no market-based motive for inflating the AWP in the generic context. Regardless of motive, it is still true that all twenty-nine or so generic manufacturers of albuterol did independently post inflated AWPs which caused the median itself to be inflated, which in turn caused substantial overpayments by TPPs and patients. Given that there are no claims or evidence of conspiracy or joint enterprise, the pertinent legal question is whether Warrick can be said to have individually caused the plaintiffs' injuries.

Plaintiffs must prove that Warrick was a "but for" cause of their injuries when purchasing albuterol sulfate. In other words, plaintiffs must show that they would not have suffered the same injury if Warrick had reported a true AWP. Given the procedure for calculating a median, this could only possibly be true when Warrick's AWP was at or above the median. In that case, reporting a true AWP (which would be well below the median) would cause the median to shift down to the AWP of the next manufacturer in the ordered series. If that manufacturer had reported a lower AWP (rather than the same AWP), then the median would drop. In this situation, Warrick would affect the reimbursement for every version of albuterol sulfate sold.

However, when Warrick's AWPs were below the median, moving them farther down to a true AWP would have had no effect on the median. In that case, reporting a true AWP could not change the median used for reimbursement and plaintiffs would sustain the same injury as when Warrick published an inflated AWP. Warrick would not be a "but for" cause of plaintiffs' injury. In sum, Warrick was a legal cause of plaintiffs' injury only when reporting a true AWP would have actually shifted the median.

Looking at the manufacturer data provided by Dr. Addanki, there are only two years between 1998 and 2003 in which Warrick's AWP was at or above the median, and the effect of reporting a true price would be to lower the median.[77] For the 0.5% solution, Warrick's AWP in 1998 was the median and in 1999 Warrick's AWP was above the median. In both those years, reporting a true AWP would have resulted in the median shifting slightly downward.[78] Therefore, there is liability for albuterol in both 1998 and 1999. For all other years, legal causation has not been proven.

BMS and Schering argue that for both the brand and the generic multi-source drugs, plaintiffs' claims must still fail because plaintiffs cannot identify the manufacturer of any particular drug for which they reimbursed. However, this is of no consequence because when the manufacturer causes the median to be inflated, it affects reimbursement for every manufacturer's version of the drug. It does not

77. According to Dr. Addanki, he used information from Medispan to calculate the median of the generics and compare it to Warrick's AWPs. (*See* DX 2920.) While it is not clear whether this was the actual median AWP used for reimbursement by Medicare, Warrick presented it as such and it was not disputed.

78. In 1998, reporting a true AWP would have shifted the median from Warrick's AWP of $0.7495 to Aligen's AWP of $0.7325. (*See* DX 2920.) In 1999, reporting a true AWP would have shifted the median from $0.7410 to $0.7325. (*See id.*)

matter who manufactured any particular drug. Because defendants failed to report a true AWP, plaintiffs paid a higher reimbursement amount every time they reimbursed for every manufacturer's version of that multi-source drug.

b. *Apportionment*

Plaintiffs urge the Court to find that defendants are jointly and severally liable for the whole harm suffered by plaintiffs with respect to each multi-source drugs—a hard pill to swallow. The theory of joint and several liability has been applied by Massachusetts courts in the context of Chapter 93A actions. *See, e.g., Kattar v. Demoulas*, 433 Mass. 1, 739 N.E.2d 246, 258 (2000); *Int'l Fidelity Ins. Co. v. Wilson*, 387 Mass. 841, 443 N.E.2d 1308, 1318 (1983); *Piccuirro v. Gaitenby*, 20 Mass. App.Ct. 286, 480 N.E.2d 30, 35 (1985); *see also Pepsi–Cola Metro. Bottling Co. v. Checkers, Inc.*, 754 F.2d 10, 19–20 (1st Cir.1985) (affirming the district court's use of joint and several liability for a Chapter 93A claim). Joint and several liability is appropriate when "the independent tortious conduct of two or more persons is a legal cause of an indivisible injury." [79] Restatement (Third) of Torts: Apportionment of Liability, § A18 (1999). Under joint and several liability, "a plaintiff may sue and recover all damages from any defendant found liable." *Id.* § A18 cmt. a.

Here, many of the manufacturers of a multi-source drug independently caused the injury to all payors that reimbursed for that multi-source drug. Had any one of the manufacturers of *branded* multi-source drugs reported a true AWP, the reimbursement amount would have been lower. With respect to generics, if any manufacturer with an AWP at or above the median had reported a true AWP, the reimbursement amount would have been lower (in most cases). Therefore, joint and several liability is appropriate if there is no way to divide the injury to TPPs and consumers paying for drugs based on a J-code. However, given that plaintiffs purchased a discrete quantity of drugs from each manufacturer, this may be a case where the injury is divisible, rather than indivisible.

The earlier Restatement (Second) of Torts provides explanation and guidance regarding what constitutes a divisible injury:

> d. Divisible harm. There are other kinds of harm which, while not so clearly marked out as severable into distinct parts, are still capable of division upon a reasonable and rational basis, and of fair apportionment among the causes responsible. Thus where the cattle of two or more owners trespass upon the plaintiff's land and destroy his crop, the aggregate harm is a lost crop, but it may nevertheless be apportioned among the owners of the cattle, on the basis of the number owned by each, and the reasonable assumption that the respective harm done is proportionate to that number. Where such apportionment can be made without injustice to any of the parties, the court may require it to be made.

Restatement (Second) of Torts § 433A cmt. d (1965); *see also Bass v. Gen. Motors Corp.*, 150 F.3d 842, 846 (8th Cir.1998) (explaining that a divisible injury is one that "can be clearly separated and attributed either to the manufacturer or the

79. Use of a joint and several liability theory does not require that all tortfeasors are joined in the action. *See, e.g., Shantigar Found. v. Bear Mt. Builders*, 441 Mass. 131, 804 N.E.2d 324, 332 (2004) ("Under our current system of joint and several liability, a plaintiff injured by more than one tortfeasor may sue any or all of them for her full damages.") (citations omitted).

original tortfeasor"). The caselaw provides little guidance in this area. Examples of divisible injuries include an injury that one party causes and another subsequently aggravates in some measurable way, *Vanguard Sav. & Loan Ass'n v. Banks*, 1995 WL 30589, *2–3, 1995 U.S. Dist. LEXIS 737, *7–8 (E.D.Pa. Jan. 24, 1995), and the flooding of tribal lands where it was possible to ascertain the percentage of water attributable to each contributing irrigation district, *United States v. Imperial Irrigation Dist.*, 799 F.Supp. 1052, 1069–70 (S.D.Cal.1992).

"An injury is indivisible if, according to the applicable rules of causation, . . . each relevant person caused the entire injury." Restatement (Third) of Torts: Apportionment of Liability, § 7 cmt. e; *see also Watts v. Laurent*, 774 F.2d 168, 180 (7th Cir.1985) (explaining that an indivisible injury is one that "cannot be apportioned in any sensible way among the several defendants"). Examples of indivisible injuries seem even farther afield; they include brain damage, broken bones, and paraplegia, *Richardson v. Volkswagenwerk, A.G.*, 552 F.Supp. 73, 84 (W.D.Mo.1982); death, *Huddell v. Levin*, 395 F.Supp. 64, 77 (D.N.J.1975); a fire started by multiple parties, *Wausau Bus. Ins. Co. v. Turner Constr. Co.*, 143 F.Supp.2d 336, 345 (S.D.N.Y.2001); and lost profits from a breach of contract, *Peacock v. Landquest, Ltd.*, 1993 U.S. Dist. LEXIS 4371, at *15 (W.D.Mich. Feb. 5, 1993). The parties cited no cases, and the Court could find none, that deal with a situation similar to this case.

Here, it is likely that the class-wide harm can be divided and apportioned based on the reasonable assumption that the harm is proportionate to the number of pills sold at the inflated AWP. Defendants bear the burden of demonstrating that the injury is divisible and proving the magnitude of the damages that they caused, through their relevant market share. *See* Restatement (Third) of Torts: Apportionment of Liability, § 26 cmt. h ("A party alleging that damages are divisible has the burden to prove that they are divisible. . . . The burden to prove the magnitude of each part is on the party who seeks division."). Plaintiffs "have advised the Court that they will accept entry of judgments revised to reflect BMS's, Schering's, and Warrick's individual market shares for each of their multi-source drugs for Massachusetts, measured on an annual basis for each year of the Class Period." (Pls.' Post–Trial Omnibus Trial Br. 59.) Defendants should therefore provide information on their relevant market shares for the purpose of calculating Class 2 damages for multi-source drugs. Otherwise, joint and several liability will be imposed.[80]

6. *Drug–by–Drug*

In order to examine each defendant and each drug, I have identified three salient factors relevant to a finding of unfair conduct under Chapter 93A for both Class 2 and Class 3.

First, the most important inquiry asks: were there egregious spreads above the

80. Plaintiffs have also pressed a theory of market share liability. However, that theory of liability typically deals with products liability cases in which it is impossible to identify the actual product that caused a plaintiff's injury. *See McCormack v. Abbott Labs.*, 617 F.Supp. 1521, 1525 (D.Mass.1985) ("The emergence of a market-share theory of liability in American jurisprudence stems from the recognition by several courts that the field of products liability has been changed drastically with the advent of mass production of fungible goods and complex marketing methods."). Here, plaintiffs have proved that defendants have caused injury to each of the class members, and the only difficulty is determining the amount of damages.

30% yardstick expected in the industry? In particular, I focus on the extent and duration of the spreads to evaluate egregiousness.

Second, I will look at the company's history of creating the spread. Did the manufacturer actually increase the AWP and/or list price, as opposed to just increasing the spread through discounts and rebates? Creating the spread by increasing the AWP comes at no cost to the pharmaceutical company and places the full financial burden of the spread on the payor and patient. This approach to expanding the spread is strong evidence of unethical conduct. Also relevant to this analysis is the legitimacy of the list price from which the markup is derived: Is it a real list price at which substantial sales were made or an unfair and deceptive price used to jack up the AWP? Finally, evidence that an AWP increase was intended to thwart Congress's change in reimbursement rates will constitute evidence of unethical behavior.

Third, did the defendant engage in a proactive scheme to market the spread to doctors by encouraging them to purchase drugs because of their profitability rather than their therapeutic qualities? *See* OIG Compliance Program Guidance, 68 Fed. Reg. at 23,737 ("Active marketing of the spread includes, for example, sales representatives promoting the spread as a reason to purchase the product or guaranteeing a certain profit or spread in exchange for the purchase of a product.").

The weight given to each of these factors depends on the particular circumstances of each manufacturer and each drug for each year; no single factor is necessarily determinative, but the size and duration of a mega-spread is the most significant factor. With these criteria in mind, I turn to each defendant.

a. *AstraZeneca*

[15] Under these three criteria, I find that AstraZeneca engaged in unfair and deceptive conduct. First, from 1996 until 2002, spreads on Zoladex ranged from 40% to over 169%, exceeding the 30% yardstick in every year for both NDCs. Thus, the extent and duration of the spreads were significant. Second, from 1996 through 1999, AstraZeneca continued to increase WAC and the corresponding AWP such that beneficiaries and TPPs were forced to pay higher amounts despite the falling sales price of Zoladex. It is particularly troubling that AstraZeneca raised AWP in 1998 in order to torpedo Medicare's attempt to reign in costs by reducing reimbursement to 95% of AWP in the BBA. Finally, AstraZeneca actively marketed the spread to physicians by repeatedly emphasizing the "Return to Practice" that could be obtained by prescribing Zoladex. Plaintiffs presented letters, emails, spreadsheets, and call notes from several years to document this campaign to sell Zoladex based upon profitability.

AstraZeneca raises several arguments to counter plaintiffs' Chapter 93A claim. First, it claims that it did not keep the spreads secret. AstraZeneca notes that throughout the class period it reported an accurate average manufacturer's price ("AMP"), a close proxy for ASP, to CMS for purposes of Medicaid. However, AMP data is confidential information that is unavailable to TPPs or consumers. Similarly, AstraZeneca points out that data about the actual price paid by physicians for Zoladex was available in the reports of IMS Health, a private pharmaceutical data provider. As noted earlier, that IMS data did not provide a clear representation of the spreads on Zoladex. AstraZeneca next points out that in 1996 it made efforts to start a "MAP" program under which a TPP would buy PADs through a specialty

pharmacy.[81] AstraZeneca says it discussed the spreads with TPPs to persuade TPPs to use this system.

While it is true that some data regarding the acquisition costs of Zoladex was leaking into the public domain, this did not mitigate the unfairness of using a grossly inflated AWP (or WAC).[82] As explained earlier, TPPs faced significant structural impediments to changing the reimbursement system for a single drug. Furthermore, Medicare reimbursement was statutorily based on AWP, so TPPs were stuck paying for Zoladex based on the inflated AWP provided by AstraZeneca.

Second, AstraZeneca denies being in an "arms race" with Lupron that hurt the TPPs and consumers. After all, if it stopped offering physician discounts, it claims that physicians would have purchased the more expensive Lupron. While that may have been true, at least in the short run, one fraud does not excuse another. While AstraZeneca may initially have tried to do the right thing, it soon entered the fray by manipulating and marketing the spread with gusto.

Finally, AstraZeneca argues that for Class 2, it was CMS, and not AstraZeneca, that caused plaintiffs' injury because CMS determined the allowed amount for Zoladex. Although CMS was responsible for the twenty percent calculation owed by the patient, the allowed amount was clearly set by a statute that was known and understood by AstraZeneca. Every time a plaintiff reimbursed for Zoladex based upon the AWP, AstraZeneca caused a loss by reporting a false and grossly inflated AWP.

AstraZeneca's conduct supports all of the factors I enumerated, and I therefore easily find that its actions were unfair to consumers and TPPs under Chapter 93A. Accordingly, I find liability for Zoladex during the years 1998–2002.[83] Using Dr. Hartman's calculations, I find damages to Class 3 plaintiffs of $751,338 in 1998, $799,284 in 1999, $858,145 in 2000, $1,008,700 in 2001 and $1,033,962 in 2002. (*See* PX 4028, Attach. J.1.a.) Dr. Hartman will have to calculate the Class 2 damages consistent with this opinion.

b. *Johnson & Johnson*

1. *Procrit*

[16] Two factors militate in favor of Chapter 93A liability for J & J on Procrit. First, J & J actively marketed the spread on Procrit despite having a policy prohibiting such conduct. J & J was touting "revenue" as a reason to give Procrit. The sales force was educated on the importance of the economics of prescribing Procrit and instructed on how to explain profit to a customer. Second, from 1991 through 1996, J & J did not raise its list price and AWP, but the first increases it reported in 1997 and 1998 summed to approximately 5%, the exact reduction that the BBA was implementing for Medicare at that time. Further price increases were then taken in the subsequent years 2000–2002.

81. AstraZeneca dropped the MAP program in 1999 or 2000 because of concerns from purchasing physicians.

82. While AstraZeneca claims that it continued to make some sales at WAC, it does not provide data that there were a substantial number of such sales.

83. Dr. Hartman has calculated damages for Zoladex in 2003 using "trends" from 1998–2002. (*See* Hartman Decl. Attach. J. 6.) He does not provide any figure for the actual ASP or corresponding spread in 2003, so I decline to find liability in that year. Dr. Hartman also uses this "trend" approach to find liability and calculate 2003 damages for many other drugs at trial. I similarly decline to find liability in 2003 without actual evidence of the ASP and spread.

Nevertheless, the spread for Procrit did not exceed 30% in any year for any of the 15 Procrit NDCs. In fact, most spreads were below 25%. As Dr. Rosenthal noted, Procrit is one of the drugs for which AWP seems to work well because the AWP closely tracks the ASP. Given this reasonable relationship throughout the class period, I find that J & J's conduct regarding Procrit, while troubling, was not outrageous or egregious under Chapter 93A.

2. *Remicade*

The story for Remicade is somewhat similar. There is some evidence, though much less than for Procrit, that J & J was marketing Remicade based on its profitability.[84] J & J also increased the WAC and corresponding AWP for Remicade each year from 1999–2001. However, the spreads only exceeded 30% by 2.1% in 1999 and 1.9% in 2001. And according to the calculations of J & J's expert, Jayson Dukes, those two spreads drop below 30% when a weighted average AWP is used for spread calculation rather than the June 30 AWP that Dr. Hartman uses. Using the factors, I find that there is no liability for Remicade.

Yet plaintiffs argue that a different expectations threshold should be used for Remicade: 25% rather than 30%. Remicade is unique because unlike substantially all other physician administered drugs and particularly all the drugs in this trial, J & J set the AWP for Remicade at 30% above the WAC. This is 5%–10% more than the expected markup that nearly all experts testified was common in the marketplace. Furthermore, J & J's John Hoffman explained that part of the reason for setting the AWP at this level was that it was a price that the payors could bear. Plaintiffs therefore suggest that it is appropriate to use a 25% expectations threshold to determine liability.

This is a close call. Although Remicade's AWP markup was higher than the generally understood industry standard markup, J & J's minimal discounting resulted in a spread that was reasonably within the range of payor expectations. The Remicade spread hovered near 30% in every year, such that the AWP was predictably related to the actual acquisition costs. Furthermore, the 30% AWP markup was published by the industry compendia, contributing to the expectation that the spread would be approximately 30%. As such, there were no secret or deceptive spreads. Given that AWP closely tracked ASP throughout the period, and the spreads were all at or about 30%, I conclude that there is no liability for Remicade.

c. *Bristol–Myers Squibb*

At trial, BMS repeatedly argued that its WLP was a legitimate list price, and thus neither unfair nor deceptive.[85] BMS justified its pricing strategy, whereby it never decreased the list price despite heavy discounting, because it could always sell to a significant proportion of its customers at

84. After trial, plaintiffs did newly discover and seek to introduce evidence that J & J sales representatives were marketing the spread on Remicade using a slide presentation that contained an audible "Ka–Ching" sound on the slide showing the profit potential of Remicade. (*See* Docket No. 3687.) I allow the motion. While this is certainly strong evidence of spread marketing, it does not affect my conclusion that because of the small spreads and predictable relationship between AWP and ASP there is no liability.

85. Recall that BMS only reported a WLP to the publications, and not an AWP. As explained earlier, WLP and AWP are formulaically related by a set markup. BMS approved and republished the AWPs listed by the publications. BMS's argument that it cannot be responsible for the actions of the publishers is unavailing.

that list price. Dr. Bell provided detailed calculations of the percentage of sales that were made at or about WLP, in order to demonstrate the legitimacy of the list prices.

Plaintiffs argue that regardless of the number of sales at WLP, BMS had a duty to disclose to payors that sales were being made at substantial discounts off WLP. Plaintiffs emphasize that as the ASP dropped, and BMS held WLP constant, insurers and patients were paying deceptively inflated prices. Plaintiffs contend that they were misled by the WLP, did not have information about the confidential discounts, and did not know of the mega-spreads.

BMS relies on the FTC's Guides Against Deceptive Pricing, which provide that a list price "will not be deemed fictitious if it is the price at which substantial (that is, not isolated or insignificant) sales are made." 16 C.F.R. § 233.3(d). The FTC does not define "substantial" and there are no cases interpreting the Guides Against Deceptive Practices since its adoption in 1967. Both parties cite to cases that interpret an earlier form of the guidelines that required list prices to reflect the "usual and customary prices at which products are sold." *See Regina Corp. v. Fed. Trade Comm'n*, 322 F.2d 765, 767 (3d Cir.1963); *compare Helbros Watch Co. v. Fed. Trade Comm'n*, 310 F.2d 868, 870 (D.C.Cir.1962) (construing 60% of sales at the list price as not sufficiently substantial prior to the adoption of the Guides Against Deceptive Pricing), *with Federated Nationwide Wholesalers Serv. v. Fed. Trade Comm'n*, 398 F.2d 253, 261 (2d Cir.1968) (construing 40% of sales as "substantial and significant" prior to the adoption of the Guides Against Deceptive Pricing). The sparse caselaw applying this language is inconclusive. I find and hold that if more than 50 percent of all sales were made at or about the list price, the list price will not be deemed fictitious.

For list prices, like WLP, it is expected that there may be some discounting, but that most customers are paying at or about the list price. Since the BMS AWPs were simply a formulaic 20 to 25 percent markup over WLP, the standard industry practice, I do not find Chapter 93A liability when a substantial number of sales were made at the WLP. However, when discounting became so prevalent that the list price no longer reflected the price that most people paid, it became unfair and deceptive to continue publishing such a list price upon which the AWP is based. *See* 16 C.F.R. § 233.3(a) ("To the extent that list or suggested retail prices do not in fact correspond to prices at which a substantial number of sales of the article in question are made, the advertisement of a reduction may mislead the consumer.").

BMS also argues that oncologists are not involved in the negotiation of drug prices because most belong to regional buying groups or GPOs that negotiate with the manufacturers. The amount of sales made to GPOs as opposed to physicians directly was never resolved at trial. Nevertheless, as Dr. Rosenthal explained, GPOs negotiate with the manufacturers for volume discounts on drugs which are then passed on as lower acquisition prices to doctors so that the effect is essentially the same. (11/15/06 Tr. 46:4–25 (Rosenthal).)

Finally, BMS challenges Dr. Hartman's damage calculations, arguing that he did not exclude capitated contracts that are not based upon AWP. Defendants' expert Dr. Gaier calculated that as much as 43% of the reimbursements for BCBSMA were not based upon AWP. (*See* Gaier Aff. Attach. 37; Gaier Aff. ¶¶ 56–60.) Dr. Hartman disputes the reliability of Gaier's calculations and finds that it contradicts

his own claims analysis. Hartman reviewed BCBSMA Medigap payments as well as actual Medicare claims to obtain a sample of claims. Using this data, he found that most claims are paid based on AWP. (Hartman Rebuttal ¶¶ 68–70.) Furthermore, in his damages analysis, Hartman attempted to exclude all capitated contracts that were not AWP-based. (11/21/06 Tr. 68:18–20 (Hartman).) I cannot say that his method was unreliable.

1. *Etopophos*

BMS's Etopophos, a single-source drug throughout the class period, merits little discussion. Dr. Hartman calculated a spread above 30% in only one year, 1996. In that year, 99.9% of sales were made within 5% of list price. I find no liability for Etopophos.

2. *Paraplatin*

Throughout the class period, Paraplatin was a single-source drug that was often used in combination with Taxol. BMS marketed the spread on both drugs, emphasizing the profitability of the combined regimen in meetings with physicians primarily from 1998 through 2002. BMS made annual increases in the WLP, but was able to maintain a substantial amount of sales at that price. From 1993 to 2002 between 83% and 99% of sales were made within 5% of WLP each year. Discounting did result in spreads for certain NDCs, which reached as high as 67% for one NDC in 1999. However, the spreads were not consistently above 30% for any NDC. Given the legitimate list prices and relatively low and sporadic spreads, I find no liability for Paraplatin.

3. *Taxol*

[17] Taxol lost exclusivity in 2000 when a competing brand entered the market, followed by generic competition in 2001. BMS was actively marketing the spread on Taxol from 1998 through 2002, as demonstrated by substantial evidence presented at trial. Up until 2001 when Taxol was subject to generic competition, only two Taxol NDCs had annual spreads that exceeded 30%, and both by less than 1%. However, in 2001 the spreads began to rise and less than 42% of sales were made near list price. In 2002, less than 1% of sales were made at list price and spreads reached as high as 500%. I therefore find that BMS's conduct in marketing and manipulating the spread for Taxol violated Chapter 93A for the years 2001 and 2002. Using Dr. Hartman's calculations, I find damages to Class 3 plaintiffs of $183,454 in 2001. (*See* Hartman Decl., Attach. J.2.a.) These damages arise from the six month period in 2001 after Taxol became subject to competition, during which time Dr. Hartman assumes that AWP pricing is still in effect. The Court does not assess damages for Class 3 after this time because pricing was no longer typically based on AWP in provider reimbursement benchmarks. The Court will await Dr. Hartman's revised calculations with respect to Class 2.[86]

4. *Vepesid*

Vepesid was dispensed in two forms, capsule and injectable. Although there was no evidence that BMS was aggressively marketing the spread on Vepesid, BMS did provide an online "Cost Differential" report, which could calculate the "AWP cost differential" for any BMS drug. Of significance, there were huge spreads on the injectable form throughout the class period. Beginning in 1996, the vast majority of sales were made at prices less than

86. Class 2 damage calculations for all BMS multi-source drugs, including Taxol, will be based upon the difference between the ASP for BMS's brand drug and the corresponding median generic AWP. (*See* Hartman Decl. ¶ 72.)

50% of WLP (except in the year 2000). Spreads above 30% existed on at least half of the injectable NDCs for every year from 1994 until 2002. *In 1998 and 1999 spreads reached over 1000%.* This raises the question of whether the existence of mega-spreads alone, without any proactive spread marketing or increase in the published AWP, is sufficient to create liability under Chapter 93A.

After hearing all the evidence in this trial, I find that these mega-spreads are shocking and on their own prove a sufficient degree of unfairness and deception to impose Chapter 93A liability because they are so oppressive and injurious to the insurers and patients who must pay such inflated prices. I therefore find that the existence of the mega-spread, by itself, is a violation of Chapter 93A. For Vepesid, there is one year, 2000, for which over 55% of sales were made within 5% of list price. I exclude that year, and find liability for Vepesid injectable from 1998–1999 and 2001–2002. In contrast, Vepesid capsules only exceeded the 30% yardstick once, by 0.1%, and I therefore find no liability for the capsule form. Because Vepesid became multi-source prior to 1998, there are no Class 3 damages. The Court will await Dr. Hartman's revised calculations for Class 2.[87]

5. *Cytoxan*

Cytoxan also was produced in two forms, an injectable solution and tablets. There was no evidence of spread marketing on either form of Cytoxan. However, the injectable form had spreads of over 100% on certain NDCs in every single year from 1993 until 2002, *peaking at 676% in 1999.* Moreover, by 1999, virtually no sales were made at WLP, and as early as 1996, the vast majority of sales were made at prices less than 50% of WLP. (DX 2524.) I find that these mega-spreads alone are sufficient to find liability for the injectable form of Cytoxan from 1998–2002.

Spreads for the tablet form of Cytoxan were much smaller, and much less consistent. In 1999 two of the five total Cytoxan tablet NDCs had spreads of 31% each and later in 2002 the same NDCs had spreads of 34% and 39%. I find that these small, sporadic spreads are insufficient to assess liability for Cytoxan tablets.

Because Cytoxan became multi-source prior to 1998, there are no Class 3 damages. The Court will await Dr. Hartman's revised calculations for Class 2.

6. *Blenoxane*

When Blenoxane became subject to generic competition in 1996 the spreads began to rise, and sales at WLP began to plummet. In every year from 1998 to 2002, at least two of the four Blenoxane NDCs had spreads exceeding 30%. The highest spreads ranged from 72% in 1998 to 199% in 2002. Although the spreads aren't as shocking as some of the mega-spreads in this trial, the spreads were large and consistent throughout that time period.

Furthermore, WLP was no longer a true list price, with less than 16% of sales made within 5% of WLP in each year. Indeed, by the year 2000, virtually no sales were made at WLP, and by 2001, the vast majority of sales were made at prices less than 50% of WLP. I therefore find that the manipulation of these spreads was unfair

87. It appears from the record that reimbursements for the Vepesid and Cytoxan capsules can be differentiated from those of the injectables because the two forms are associated with different J-codes. (*See* Hartman Decl. Attach. 3.) If so, Dr. Hartman shall calculate damages only for injectables. If not, the Court will permit BMS to demonstrate how to fairly apportion the damages.

under Chapter 93A, that WLP was not a true price, and that there is liability for Blenoxane from 1998 to 2002. However, there are no damages for Blenoxane. For Class 3, Blenoxane became subject to multi-source competition in 1996 such that reimbursements were not based on AWP after December 1997. For Class 2, Dr. Hartman's survey data indicated that for Blenoxane "there were no incidents of visits to doctors' offices that were reimbursed under Medicare." (11/20/06 Tr. 54:10–22 (Hartman).)

7. *Rubex*

Rubex was a multi-source drug for the entire period. Like many of the other BMS drugs, there is no evidence that BMS was marketing the spread on Rubex. However, from 1994 until 2002, spreads were consistently above 30% for at least two of the six NDCs, with the highest spreads ranging from 55% to 438%. Although for most of these years, the vast majority of the sales were made at less than 50% of list price, in 2001 62% of sales were made within 5% of WLP. I therefore find that the WLP in 2001 was a true list price and thus there is no liability. For the remaining years, however, the spreads are large and consistent. I therefore find liability for Rubex in 1998–2000, and 2002. Because Rubex has been multi-source throughout the class period, there are no damages to Class 3. The Court will await Dr. Hartman's revised calculations regarding Class 2 damages.

d. *Schering–Plough*

1. *Intron–A and Temodar*

Of the four Schering–Plough drugs at issue, two can be addressed very briefly. First, regarding Temodar, all spreads are below 30% and I therefore find no liability. For the Intron–A NDCs that Dr. Hartman considered to be physician-administered, the spread exceeds 30% in only 3 years, 1996, 2001 and 2002. The highest spread is 32.6% in 2001. The only evidence of spread marketing on Intron–A is an internal memorandum trumpeting the profitability of Intron–A to sales representatives. However, the spread that can be calculated from that 1998 memorandum is only 14% and there were no spreads over 30% from 1997 to 2000. Given the isolated, minor spreads and little evidence of spread marketing, I find no liability for Temodar or Intron–A.

2. *Proventil*

Proventil, Schering–Plough's branded albuterol solution, is a somewhat strange case. Although there are spreads consistently in the 30%–60% range for 1992–1997, from 1998 until 2003 there is only a single occurrence of a spread exceeding 30%. In 2002, one of the four Proventil NDCs had a spread of 163%. During that five year period, Schering–Plough took several direct price and corresponding AWP increases on Proventil, but Proventil's ASPs rose as well except for the year 2002.[88] There is no evidence of any spread marketing on Proventil. It is therefore a close question as to whether there should be liability for Proventil in 2002. Although the spread in 2002 is of significant magnitude, it is an isolated, anomalous occurrence on one of the four Proventil NDCs. As such, I do not find that it rises to the level of unfairness prohibited by Chapter 93A.

3. *Warrick's albuterol sulfate*

[18] Finally, Warrick produces a generic version of albuterol sulfate. There is

88. Dr. Addanki calculated that 83% of sales for Proventil were made within 5% of WAC between 1991 and 2004. Because it is an average across 14 years, that figure is not as helpful as a year-by-year calculation. The more relevant data point to this analysis, which was not presented at trial, is the percentage of Proventil sales near WAC in 2002.

some evidence suggesting spread marketing, mainly advertisements listing the price and AWP for albuterol. As a generic, the spreads were large and consistent from 1993 through 2003. From 1998 until 2003, three of the seven NDCs had spreads of over 200% in every single year with some reaching over 600%. The spread for one NDC of Warrick's albuterol reached as high as 867%.

I return to the conclusion that I reached for the multi-source BMS drugs: the persistent existence of mega-spreads is by itself unfair to insurers and patients who are paying based on a median AWP that has no relation to real acquisition costs. Warrick continued this practice despite knowing that patients were overpaying for the drug. Given the limited years for which plaintiffs have shown that Warrick's AWP caused an inflated median price, I find liability for albuterol sulfate in Class 2 only for the years 1998 to 1999. Furthermore, the basis for damage calculations is limited to the difference between the actual median AWP and the "but for" median AWP had Warrick reported a true AWP. As a multi-source drug throughout the class period, there are no damages in Class 3.[89]

F. *Class 2 Damages*

For Class 2, the information provided at trial is insufficient to calculate exact damages. (*See* Hartman Decl. Attach. 4 (providing only an aggregate of Class 2 damages, 1991–2003, using a 30% liability threshold).) The Court needs a breakdown of the damages for each drug, using the 30% threshold, for each of the years from 1998 until 2003 for which I have found liability. Defendants may provide their market shares in Massachusetts so that the Court can apportion the damage amount on that basis. If necessary, the Court will hold a damages phase of the bench trial.

III. *ORDER*

1. The Court orders dismissal of the J & J defendants.

2. The Court orders dismissal of Schering–Plough (not including Warrick).

3. The Court finds liability for:

a. AstraZeneca: Zoladex (1998–2002)

b. BMS: Taxol (2001–2002); Vepesid (1998–1999, 2001–2002); Cytoxan (1998–2002); Blenoxane (1998–2002); Rubex (1998–2000, 2002)

c. Warrick: albuterol sulfate (1998–1999)

4. By August 1, 2007, the Court orders plaintiffs to provide calculations of the Class 2 damages consistent with these findings.

89. At trial, Warrick argued that Sheet Metal Workers' 0.083% albuterol reimbursements were based upon a billed charge, and not at all based upon AWP. However, defendants later conceded that the discrepancy in the charges was due to the fact that when albuterol was administered in combination with ipratropium bromide, the lower median AWP for the concentrated albuterol solution (rather than the unit dose) was sometimes used for reimbursement. (*See* Docket No. 3480.) Warrick now argues that Dr. Hartman's original damages for albuterol were overstated because the 0.083% albuterol solution was sometimes reimbursed based upon a lower median than Dr. Hartman assumed. When asked about this possibility, Dr. Hartman noted that he believes his damages for albuterol may have been overstated given his use of manufacturer data. (*See* 12/18/06 Tr. 141:25–143:2 (Hartman).) This is a highly complex factual issue that was not discovered until the final days of trial and was thus poorly explained and vetted. If feasible, Dr. Hartman shall take this information into account in his recalculation of damages pursuant to this opinion.

5. By August 1, 2007, in order to apportion damages for Class 2, the Court allows BMS to provide market share data in Massachusetts for Taxol, Vepesid, Cytoxan, and Rubex for the years 1998–2002.

6. By August 1, 2007, in order to apportion damages for Class 2, the Court allows Warrick to provide market share data for Warrick's generic albuterol sulfate for the years 1998–1999.

SO ORDERED.

APPENDIX A

Glossary of Terms

AMP	Average Manufacturer's Price
ASP	Average Sales Price
AWP	Average Wholesale Price
BBA	Balanced Budget Act of 1997
BCBSMA	Blue Cross/Blue Shield of Massachusetts
CMS	Centers for Medicaid and Medicare Services
DHHS	Department of Health and Human Services
DME	durable medical equipment
DOJ	Department of Justice
EAC	Estimated Acquisition Cost
GAO	Government Accountability Office
GPO	group purchasing organization
HCFA	Health Care Financing Administration
IPA	independent practice association
LCA	Least Costly Alternative
MAC	Maximum Allowable Cost
MMA	Medicare Prescription Drug, Improvement and Modernization Act
NDC	National Drug Code
OIG	Office of Inspector General
PAD	physician-administered drug
PBM	pharmacy benefit manager
SAD	self-administered drug
TPP	Third Party Payor
WAC	Wholesale Acquisition Cost
WLP	Wholesale List Price

APPENDIX B

"Class 2: Third–Party Payor MediGap Supplemental Insurance Class" is defined as:

> All Third–Party Payors who made reimbursements for drugs purchased in Massachusetts, or who made reimbursements for drugs and have their principal place of business in Massachusetts, based on AWP for a Medicare Part B covered Subject Drug that was manufactured by AstraZeneca (AstraZeneca, PLC, Zeneca, Inc., AstraZeneca Pharmaceuticals L.P., and AstraZeneca U.S.), the BMS Group (Bristol–Myers Squibb Co., Oncology Therapeutics Network Corp., and Apothecon, Inc.), SmithKline Beecham Corporation d/b/a GlaxoSmithKline, the Johnson & Johnson Group (Johnson & Johnson, Centocor, Inc., Ortho Biotech, McNeil–PPC, Inc., and Janssen Pharmaceutica Products, L.P.), or the Schering Plough Group (Schering–Plough Corporation and Warrick Pharmaceuticals Corporation).

APPENDIX B—Continued